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EXAMINER	
CARTER, TIA A	

ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/770,214	OTEKI ET AL.	
	Examiner	Art Unit	
	Tia A Carter	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5-10 and 19-24* is/are allowed.

6)☒ Claim(s) *1-4,11-18 and 25-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4-6, 9-21*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Amemiya (US. 5619343).

Regarding claim 1, Amemiya discloses an image processing apparatus comprising:

A reading unit (image sensor 1a-b) which simultaneously reads image data from two, an obverse and a reverse, surfaces of a document (fig. 1, col. 3, lines 57-59);

A compressing unit (compressing circuit 9) which compresses received image data 9Fig. 1,col. 4, lines 13-15); and

A controlling unit (control circuit 11) which orchestrates a flow of image data from said reading unit to said compressing unit (fig. 1, col. 4, lines 26-28) in such a manner that the image data corresponding to the obverse surface and the reverse surface is input into said compressing unit at different timing (fig. 1, col. 5, lines 20-30).

Regarding claim 2, Taguchi et al. discloses the image processing apparatus according to claim 1, wherein said reading unit includes,

an obverse reading unit (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

a reverse reading unit (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

Regarding claim 3, Amemiya discloses an image processing apparatus comprising:

A reading unit which simultaneously reads image data from two, an obverse and reverse, surface of a document (fig. 1, col. 3, lines 57-59);

A storing unit (RAMs 12a-b), which receives and stores therein the image data read by said reading unit (Fig. 1, col. 4, lines 16-17);

A compressing unit (compressing circuit 9), which receives and compresses the image data stored in said storing unit (fig. 1,col. 4, lines 13-15);

A controlling unit (control circuit 11) which orchestrates compression of image data stored in said storing unit (fig. 1, col. 4, lines 25-36) by said compressing unit in such a manner that the image data corresponding to the obverse surface and the reverse surface is compressing unit at different (fig. 1, col. 5, lines 20-30).

Regarding claim 4, Taguchi et al. discloses the image processing apparatus according to claim 3, wherein said reading unit includes,

an obverse reading unit (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

a reverse reading unit (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

Regarding claim 15, Amemiya discloses an image processing apparatus comprising:

A reading means for (image sensor 1a-b) which simultaneously reads image data from two, an obverse and a reverse, surfaces of a document (fig. 1, col. 3, lines 57-59);

A compressing means for (compressing circuit 9) compressing received image data (Fig. 1,col. 4, lines 13-15); and

A controlling means for (control circuit 11) orchestrates a flow of image data from said reading means to said compressing means (fig. 1, col. 4, lines 26-28) in such a manner that the image data corresponding to the obverse surface and the reverse surface is input into said compressing means at different timing (fig. 1, col. 5, lines 20-30).

Regarding claim 16, Taguchi et al. discloses the image processing apparatus according to claim 15, wherein said reading means includes,

an obverse reading means for (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

a reverse reading means for (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

Regarding claim 17, Amemiya discloses an image processing apparatus comprising:

A reading means for which simultaneously reads image data from two, an obverse and reverse, surface of a document (fig. 1, col. 3, lines 57-59);

A storing means for (RAMs 12a-b), which receives and stores therein the image data read by said reading means (Fig. 1, col. 4, lines 16-17);

A compressing means for (compressing circuit 9) which receives and compresses the image data stored in said storing means (fig. 1,col. 4, lines 13-15);

A controlling means for (control circuit 11) orchestrates compression of image data stored in said storing means (fig. 1, col. 4, lines 25-36) by said compressing means in such a manner that the image data corresponding to the obverse surface and the reverse surface is compressing means at different timing (fig. 1, col. 5, lines 20-30).

Regarding claim 18, Taguchi et al. discloses the image processing apparatus according to claim 17, wherein said reading means includes,

an obverse reading means (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

a reverse reading means (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 11-14 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi et al. (US. 5349419) in view of Amemiya (US. 5619343).

Regarding claim 11, Taguchi et al. discloses an image processing apparatus (fig. 1 – image processing means 12) comprising:

an obverse image processing unit (reading unit 18), which subjects the image data corresponding to the obverse surface to a specific image processing (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19);

a reverse image processing unit (reading unit 18), which subjects the image data corresponding to the reverse surface to a specific image processing (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19);

an appending unit (means of identifying in recording apparatus 10) which appends identifying information for identifying information for identifying whether the image data

read by the reading unit is the image data corresponding to the obverse surface or the image data corresponding to the reverse surface (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19); and

Taguchi et al. **do not explicitly disclose** a reading unit, which simultaneously reads image data from two, an obverses and a reverse, surface of a document;

Amemiya **disclose** a reading unit (CCD sensors 1a-b), which simultaneously reads image data from two, an obverse and a reverse, surface of a document (fig. 1, col. 3, lines 57-59);

Taguchi et al. **do not explicitly disclose** a communication line, which connects, said obverse image processing unit and said reverse image processing unit, the communication line being used in transmitting or receiving the image data.

Amemiya **discloses** a communication line (SCSI BUS 14), which connects, said obverse image processing unit and said reverse image processing unit, the communication line being used in transmitting or receiving the image data (fig. 1col. 4, lines 21-22).

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al. wherein the disclosed invention would specifically cite the processing of a double-sided image which is transmitted through a communication line however it can be interpreted that Taguchi et al. may have this capability.

Regarding claim 12, Taguchi et al. discloses the image processing apparatus according to claim 11, wherein said reading unit includes,

Taguchi et al. **do not explicitly disclose** an obverse reading unit (reading unit 18) which reads image data from the obverse surface of the document; and

Taguchi et al. **do not explicitly disclose** a reverse reading unit, which reads image data from the reverse surface of the document.

Amemiya **discloses** an obverse reading unit (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

Amemiya **discloses** a reverse reading unit (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al wherein the double-sided reading performed by the devices components wherein Taguchi et al. implies double sided observation.

Regarding claim 13, Taguchi et al. discloses an image processing apparatus (fig. 1, ref. 12) comprising:

An appending unit (means of identifying in recording apparatus 10) which receives the image data acquired by said reading unit appends identifying information to the image data for identifying whether the image data corresponds to the obverse surface or the reverse surface (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19); and

An obverse image processing unit (reading unit 18 or image processing unit 20) which obtains, based on the appended identifying information, only the image data corresponding to the obverse surface from said communication line, and performs

specific image processing to the obtained image data (fig. 1, col. 8, lines 2-19 and lines 29-37 and lines 61-68); and

A reverse image processing unit (reading unit 18 or image processing unit 20), which obtains, based on the appended identifying information, only the image data corresponding to the obverse surface from said communication line, and performs specific image processing to the obtained image data (fig. 1, col. 8, lines 2-19 and lines 29-37 and lines 61-68).

Taguchi et al. **do not explicitly disclose** a reading unit, which simultaneously reads image data from two, an obverse and a reverse, surface of a document;

Amemiya **disclose** a reading unit (image sensors 1a-b), which simultaneously reads image data from two, an obverse and a reverse, surface of a document (fig. 1, col. 3, lines 57-59);

Taguchi et al. **do not disclose** a communication line to be used to send the identifying information appended image data corresponding to the obverse surface and the reverse surface.

Amemiya **discloses** a communication line (SCSI bus 14) to be used to send the identifying information appended image data corresponding to the obverse surface and the reverse surface (fig. 1, col. 14, lines 21-22);

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al. wherein the disclosed invention would specifically cite the processing of a double-sided image and identifying or implementing a communication

line for proper image transmission and processing, however it can be interpreted that Taguchi et al. may have these capabilities.

Regarding claim 14, Taguchi et al. discloses the image processing apparatus according to claim 13, wherein said reading unit includes,

Taguchi et al. **do not explicitly disclose** an obverse reading unit (reading unit 18) which reads image data from the obverse surface of the document; and

Taguchi et al. **do not explicitly disclose** a reverse reading unit, which reads image data from the reverse surface of the document.

Amemiya **discloses** an obverse reading unit (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

Amemiya **discloses** a reverse reading unit (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al wherein the double-sided reading performed by the devices components wherein Taguchi et al. implies double sided observation.

Regarding claim 25, Taguchi et al. discloses an image processing apparatus comprising:

An obverse image processing means (reading unit 18) for subjecting the image data corresponding to the obverse surface to a specific image processing (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19);

A reverse image processing means (reading unit 18) for subjecting the image data corresponding to the reverse surface to a specific image processing (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19);

An appending means (means for identifying in recording apparatus 10) for appending identifying information for identifying information for identifying whether the image data read by the reading unit is the image data corresponding to the obverse surface or the image data corresponding to the reverse surface (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19); and

Taguchi et al. **do not explicitly disclose** a reading means for simultaneously reading image data from two, an obverse and a reverse, surfaces of a document;

Amemiya **disclose** a reading unit (image sensors 1a-b), which simultaneously reads image data from two, an obverse and a reverse, surface of a document (fig. 1, col. 3, lines 57-59);

Taguchi et al. **do not disclose** a communication line for connecting said obverse image processing unit and said reverse image processing unit, the communication line being used in transmitting or receiving the image data.

Amemiya **discloses** a communication line (SCSI bus 14) for connecting said obverse image processing unit and said reverse image processing unit, the communication line being used in transmitting or receiving the image data (fig. 1, col. 14, lines 21-22).

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al. wherein the disclosed invention would specifically cite the

processing of a double-sided image and identifying or implementing a communication line for proper image transmission and processing, however it can be interpreted that Taguchi et al. may have these capabilities.

Regarding claim 26, Taguchi et al. discloses the image processing apparatus according to claim 25, wherein said reading unit includes,

Taguchi et al. **do not explicitly disclose** an obverse reading unit (reading unit 18) which reads image data from the obverse surface of the document; and

Taguchi et al. **do not explicitly disclose** a reverse reading unit, which reads image data from the reverse surface of the document.

Amemiya **discloses** an obverse reading unit (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

Amemiya **discloses** a reverse reading unit (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al wherein the double-sided reading performed by the devices components wherein Taguchi et al. implies double sided observation.

Regarding claim 27, Taguchi et al. discloses an image processing apparatus comprising:

An appending means (means for identifying in recording apparatus 10) for receiving the image data acquired by said reading unit appends identifying information to the image data for identifying whether the image data corresponds to the obverse surface or the reverse surface (fig. 1, col. 7, lines 60-68 and col. 8, lines 1-19); and

An obverse image processing means (reading unit-18 or image processing unit 20) for obtaining, based on the appended identifying information, only the image data corresponding to the obverse surface from said communication line, and performs specific image processing to the obtained image data (fig. 1, col. 8, lines 2-19 and lines 29-37 and lines 61-68); and

A reverse image processing means (reading unit-18 or image processing unit 20) for obtaining, based on the appended identifying information, only the image data corresponding to the obverse surface from said communication line, and performs specific image processing to the obtained image data (fig. 1, col. 8, lines 2-19 and lines 29-37 and lines 61-68).

Taguchi et al. **do not explicitly disclose** a reading means for simultaneously reads image data from two, an obverse and a reverse, surface of a document.

Amemiya **disclose** a reading unit (image sensor 1a-b), which simultaneously reads image data from two, an obverse and a reverse, surface of a document (fig. 1, col. 3, lines 57-59);

Taguchi et al. **do not discloses** a communication line to be used to send the identifying information appended image data corresponding to the obverse surface and the reverse surface.

Amemiya **discloses** a communication line (SCSI bus 14) to be used to send the identifying information appended image data corresponding to the obverse surface and the reverse surface (fig. 1, col. 4, lines 21-22);

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al. wherein the disclosed invention would specifically cite the processing of a double-sided image and identifying or implementing a communication line for proper image transmission and processing, however it can be interpreted that Taguchi et al. may have these capabilities.

Regarding claim 28, Taguchi et al. discloses the image processing apparatus according to claim 27, wherein said reading unit includes,

Taguchi et al. **do not explicitly disclose** an obverse reading unit (reading unit 18) which reads image data from the obverse surface of the document; and

Taguchi et al. **do not explicitly disclose** a reverse reading unit, which reads image data from the reverse surface of the document.

Amemiya **discloses** an obverse reading unit (image sensors 1a--b) which reads image data from the obverse surface of the document (fig. 1,col. 3, lines 57-59); and

Amemiya **discloses** a reverse reading unit (image sensor 1a-b), which reads image data from the reverse surface of the document (fig. 1, col. 3, lines 57-59).

It would have been obvious to one skilled in the art at the time of the invention to modify Taguchi et al wherein the double-sided reading performed by the devices components wherein Taguchi et al. implies double sided observation.

Allowable Subject Matter

1. Claims 5-10 and 19-24 are allowed.

2. The following is an examiner's statement of reasons for allowance: The allowable subject matter of the independent claims 5, 8, 19, and 22 will be cited below.

In regards to claims 5 and 19 the allowable subject matter is as cited:

A data dividing means for dividing the image data acquired by said reading means from the obverse surface and reverse surface respectively into image data of MxN pixels, where n is the number of lines and m is the number of pixels in one line;

A transmission controlling means for controlling in flow of the image data from said data dividing means to said storing means and to said compressing means, wherein said transmission controlling means allows the image data of first M x (N-1) pixels from said data dividing means to be input into said storing means, and allows the image data of last m pixels from said data dividing means to be directly input into said compressing means.

In regards to claims 8 and 22 the allowable subject matter is as cited:

A data dividing means for dividing the image data acquired by said reading means from the obverse surface and reverse surface respectively into image data of

MxN pixels, where n is the number of lines and m is the number of pixels in one line, and n<N and m<M where N is the maximum number of scan lines, and M is the maximum number of pixels in one lines;

A compressing unit which receives the image data of first m x (n-1) pixels, corresponding to either the obverse surface or the reverse surface, from said data storing unit, receives the image data of last m pixels directly from a said data dividing unit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Soma et al. (US. 6320674), Morikawa (US. 5703693) and Nakagawa et al. (US. 5966556) are cited to show related art with respect to duplex copying and image processing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia A Carter whose telephone number is 703 - 306-5433. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tia A Carter
Examiner
Art Unit 2626

TAC
11/22/04

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER